EXHIBIT 14

In The Matter Of:

INTELLECTUAL VENTURES I LLC

v.

MOTOROLA MOBILITY, LLC

RANDY H. KATZ, Ph.D. - Vol. 1

July 17, 2013

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A. I did not.
MR. SANDERS: Objection to form.
BY MR. ALBERTI:
Q. Did you review the file history of the inter partes reexamination of '450 patent?
MR. SANDERS: Objection, form.
THE WITNESS: I did.
BY MR. ALBERTI:
Q. Before this case, had you ever heard of Malibu Networks?
A. No.
Q. Had you ever heard of Jacob Jorgensen?
A. No.
Q. Have you ever heard of Dr. Jerry Gibson?
A. No.
Q. Did you review Dr. Gibson's CV?
A. I do not recall doing so, actually. I can't recall doing that.
Q. Well, I'll ask anyways, but since you didn't review his CV, I'm assuming you don't question his credentials in this case.
A. No, I do not.
Q. Do you know anyone at the UCSB engineering school?
A. I do.

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Q. Who do you know there?
A. Herb Kroemer, Nobel Laureate, in the Materials Science department, as well as in Electrical and Computer Engineering. One of my former students, Ben Zhao, is a Computer Science faculty member there. His wife, Heather Zheng, and several other colleagues, some of whom were former students at Berkeley who are now on the faculty there.
Q. Do they have a reputable Electrical Engineering/Computer Science department?
A. They do.
Q. You reviewed Dr. Gibson's report on issues of validity in this case?
A. I did.
Q. Are there any new opinions that you arrived to after reviewing Dr. Gibson's report?
A. No new opinions.
Q. You also reviewed Mark Seely's report that we discussed, true?
A. Yes.
Q. And outside of the issues surrounding claim construction, are there any new opinions that you arrived to after reviewing Mr. Seely's report?
A. No.
Q. Let's start with claim construction. So if we

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turn to Mr. Seely's report. And I want to do this because he's got a nice chart in here, which should make it easy for us to go through some of these terms. And again, the chart starts on page 10. And you'll see there's two terms that are listed next to each other. Well, there's a term on the left-hand side of the chart followed by "Plaintiff IV's Proposed Construction," then "Defendant Motorola's Proposed Construction." Do you see that?
A. I do.
Q. And for a couple of these terms, you'll see in parens, "See discussion of amendment below" where there's been an amendment. If you take a look, for example, on page 11.
A. Yes, I see that.
Q. Okay. So, and we'll, we'll go to the amendments when we get there, but I just want to sort of start in order.
First, with the CP -- I'll call it a CPE term, "subscriber customer premise equipment stations," do you see that?
A. I do.
Q. Do you agree with IV's proposed construction in this, for this term?
A. I do not.

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Q. In particular, what is your problem with IV's proposed construction?
A. I feel that the use of the term "telephone network" is too restrictive.
Q. Other than that, are there any significant problems with the construction other than the telephone network issue?
A. I think the main, my main focus on, on the meaning of this term is the notion of connecting equipment to a communications network.
Q. Do you agree with Motorola's proposed construction as listed in this table?
A. I do.
Q. About how many patent cases have you been involved with in your career?
A. I would say approximately a dozen.
Q. Are you familiar with the principle that a patentee can be his own lexicographer?
MR. SANDERS: Objection, form.
THE WITNESS: I'm not an attorney, so I'm not sure about that.
BY MR. ALBERTI:
Q. Are you aware of -- I'll try to restate it.
Are you aware of a principle where if a patentee defines something in a patent specification

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THE WITNESS: So let me, let me try and understand the example that we're considering. Two different base stations, two different subscribers, within range of both base stations?
BY MR. ALBERTI:
Q. Yes. Assuming, again, that I'm only going to talk to my AT&T base station and you're only going to speak to your Verizon base station. So let's, let me first frame, frame the issue this way.
You would agree that those two base stations, even though they're speaking -- providing different frequency bands to their respective customers, they are sharing bandwidth, true?
A. Sorry. Sharing bandwidth among whom at this point?
Q. Well, I had asked you before whether you would consider AT&T and Verizon to be sharing wireless bandwidth even though each has their own assigned frequency bands to provide to their customers, and --
A. Within, within one base station.
Q. Yes.
A. I think was the example that we had before. And, and my answer was that within the totality of capacity, you know, to pump information or voice or whatever, it is being -- that, that capacity is being

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shared between the AT&T customers and the Verizon customers. That, that is what I believe I said.
Q. Okay.
A. And we're now considering another example with two base stations. But my question was, to understand the scenario that we're talking about, to kind of come back to a physical principle of radio communication, if I have two base, two base stations that can hear each other and they are both communicating on the same frequencies, they -- basically, two nearby base stations share the ability to encode information into the frequency range that they're operating in. And there's -- if they're both communicating in the same frequency at the same time, they will conflict with each other.
So the reason to bring that up is that there is a fixed capacity that you can encode in the sort of frequency ranges. So I'm a little confused about the possibility of interference if the base stations are close by, as opposed to if they're far apart.
Q. Yeah, and I'm sorry, maybe my example wasn't specific enough. But I believe in my first example where we had Verizon and AT&T we agreed that they were speaking on completely separate frequency bands.
A. Uh-huh.

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Q. Did you follow that?
A. So, so there's no communication possible from one base station to the other in a conflicting frequency.
Q. No.
A. Okay.
Q. In that situation, would you say the base stations are sharing wireless bandwidth?
A. So I think I still would say that they're sharing wireless bandwidth for the following reason, that in the union of the frequencies between the two base stations, there is a total capacity for carrying information. And one, one base station could transmit at a higher power and, or it could have a greater frequency range and so support a larger number of customers than the other one.
There are ways of slicing and dicing sort of the fixed totality of bandwidth that's available in the union of the two base stations. So in that sense, it's like a pie that's being sliced up and, you know, you have half the pie and I have half the pie. Are we not sharing the pie?
Q. And then now let me go to my final hypothetical with this, is if in that same scenario where you have two base stations, each with a fixed and

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mutually exclusive bandwidth, and we have two cell phones speaking to the two different base stations. Are the two cell phones in that example sharing wireless bandwidth?
MR. SANDERS: Objection to form.
THE WITNESS: I have to admit, my mind wondered a little bit there, so could we go through that example again?
BY MR. ALBERTI:
Q. So we have our two base stations, each providing a fixed frequency band that is, that are mutually exclusive, okay. We'll say one is AT&T and one is Verizon. And we have now two cell phones, one speaking to the AT&T base station and one speaking to the Verizon base station. In that example, would you say that the two cell phones are sharing wireless bandwidth?
A. Again, I would say the answer is yes, because I go back to my analogy with the pie. The pie is divided in half, half -- so there's the pie. The pie is the thing being shared. We divide it in half and say this half is the Verizon side and this is the AT&T side. And I think, if I understood your example, we're taking another slice out of that and saying -- is it Dave?
Q. Yes.

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up. It's one of my award papers. Somewhere around 2000, I think. Looking in the wrong place. Sorry about that. I can't seem to find it. There we go. Oh.

Actually, yes, this isn't the paper I was -- sorry. This isn't the paper I was actually thinking about, so I'm not sure when I wrote this. I do see that it was based on a presentation I made in September 1997.

Q. And do you see there's a quote from January 1998 Wired magazine. I believe it's the second quote listed on the page.

A. I see that.

Q. So would it be fair to say that it was at least in sometime 1998 or later?

A. Yes.

Q. Okay. So it was, in general, around the time of the '450 patent. Fair?

A. Yes.

MR. SANDERS: Objection to form.

THE WITNESS: Around generally the time.

BY MR. ALBERTI:

Q. Okay.

A. Given that the time is in dispute.

Q. So if we turn to page 10. We were talking before about the Internet and communication between end nodes and the Internet, true?

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A. I'm sorry. Could you repeat that?

Q. Before our break, we were speaking about communicating between end nodes on the Internet.

A. Yes.

Q. Do you remember that?

A. Yes.

Q. So in your section 4.2, where you talk about "Strengths and Weaknesses of Internet Technology," you say, "A key underlying assumption of the Internet is that end nodes are intelligent and have the ability to execute the TCP/IP protocol stack." True?

A. That's what I wrote.

Q. And that's a correct statement, right?

A. Yes.

Q. When we were talking about sequencing, I want to direct your attention to the second paragraph, first sentence -- second paragraph, second sentence. It reads, "The Internet achieves its robust communications through packet switching and store-and-forward routing." Do you see that?

A. I do.

Q. And when I asked about packet switching, you'd agree that the Internet uses packet-switching protocol to communicate, true?

A. Well, for example, the Internet was able to

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span ATM networks, as a concrete example, and that uses something different than packet switching as an underlying technology. It uses cell switching instead. So the exclusivity of the use of the term "Internet" is a little bit at dispute in my mind.

Q. So if you were to change the sentence, the second sentence in the second paragraph to be more precise, how would you do that?

A. I would say, "The Internet's Internet protocol achieves its robust communication through packet switching and store-and-forward routing."

Q. Would you agree that it is not necessary to create a circuit between end points before communicating using the Internet protocol?

MR. SANDERS: Objection, form.

THE WITNESS: I'm sorry. Could you state that just one more time?

BY MR. ALBERTI:

Q. Sure. Do you agree that it's not necessary to create a circuit between two end points on the Internet before they can begin communicating with each other?

MR. SANDERS: Objection, form.

THE WITNESS: At the level of the Internet protocol, it is not required that a connection be established. It's possible to communicate using a

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connectionless approach.

BY MR. ALBERTI:

Q. Would you agree that that is different from a circuit-switched protocol?

A. I would say a connectionless approach is different from a connection-oriented approach.

Q. And circuit switching would be a connection-oriented approach.

A. Yes.

Q. The next sentence reads, "Information is sent in small units, packets, which may be routed differently from each other, and which may arrive at their destination out of order."

And would you agree that that is true for a packet-switching protocol?

A. This, of course, is within the contents, in the context of the Internet's IP protocol, which I will agree is a packet-switching protocol.

Q. So you would agree with that statement as it applies to a packet-switching protocol, but not a circuit-switching protocol.

MR. SANDERS: Objection, form.

THE WITNESS: The issue with circuit switching and out-of-order delivery I think are orthogonal issues. So I think you could have a circuit-switched protocol

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that could, in principle, deliver packets out of order. So I don't see those -- circuit switched implying impossible to receive things out of order.
BY MR. ALBERTI:
Q. Would you agree, though, that in a circuit-switched protocol, the packets would be routed along the same circuit, as opposed to being routed differently from each other, as we have in the Internet protocol?
MR. SANDERS: Objection to form.
THE WITNESS: Could you, could you say that again? I'm sorry.
BY MR. ALBERTI:
Q. Would you agree that information sent in a circuit-switched network between two end points would be routed along the same circuit?
MR. SANDERS: Objection to form.
THE WITNESS: Routed along the same circuit, yes. The question is whether the circuit is a physical circuit or a virtual circuit.
BY MR. ALBERTI:
Q. In the context of ATM, is it a virtual circuit between two end points that carries information?
A. That didn't sound -- I couldn't quite parse that as a question.

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Q. In the context of ATM, does communication that is sent between two end points travel along a virtual circuit?
A. It can travel along a virtual circuit. It can travel along a switched virtual circuit. It can travel along a permanent virtual circuit, and so on. So it can travel on multiple kinds of things. In fact, you can implement ATM on top of IP.
Q. So would you call ATM a packet-switching protocol?
A. I would.
Q. Would you call it a circuit-switching protocol?
A. I would.
MR. SANDERS: Objection to form.
BY MR. ALBERTI:
Q. Would you call it the unification of packet- and circuit-switching protocol?
A. Is that what I wrote? Would it be a good idea to read this section before you ask any more questions? I'm sorry. Where, actually, are we?
Q. I believe in -- well, starting on page 9 there's a paragraph, the last paragraph, that begins on that page and carries over to the next page. You refer, I believe, to ATM as a unification of packet and circuit switching.
A. In the form of ATM.
Q. Yeah.
A. I see that, that I did write that.
Q. Do you agree with that?
A. I wrote it; I agree with it.
Q. If we turn to page 12. You'll see there's a section 4.4, "ATM: The Grand Convergence"?
A. I see that section.
Q. Okay. I want to direct your attention to --
A. Would you mind if I read the section before you asked the questions --
Q. Oh, please do.
A. -- about it?
Q. Please do.
A. It is the case that we're looking at a document which is very likely to have been written 15 or more years ago and which I did not review for today's deposition, so. If you're going to ask questions about it, I think I should read it. And so the questions will be targeted towards section 4.4?
Q. Yes.
A. Okay.
Q. Only 4.4.
A. Okay, great. I won't read the whole 15-page

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thing or whatever.
Q. Okay.
MR. SANDERS:: Objection to form.
THE WITNESS: Okay.
BY MR. ALBERTI:
Q. So under the subheading "Strengths," you write, "One of ATM's key strengths is its virtual circuit concept, with call set-up in advance of data transmission."
What do you mean here by "virtual circuit concept"?
A. The idea of a virtual circuit is that we will establish a connection between communicating end points over a sequence of paths that will not be dedicated to that communication but will be shared by other contemporaneous communications. So therein lies the virtual idea. It appears to the sender that it has a dedicated path from sender to receiver and return, but it actually is shared amongst, or elements of that path can be shared amongst simultaneous communicating entities.
Q. When you say simultaneous communicating entities, are you referring to two end points, are you . . .?
A. I'm sorry. Ask your question --

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MR. SANDERS: Objection to form.
THE WITNESS: It's possible to have packet headers that are actually at the end of the packet. I don't know why they don't call them footers. So I think the sort of terminological distinction you're making, hard to disagree with.
Nevertheless, the key aspect is a given level of the network, or shall we say given specification of a protocol, knows, because it's been agreed upon in advance and standardized, where to look in the protocol to find the information it needs to act on the delivery of the packet.
BY MR. ALBERTI:
Q. Is there a limitation as to how large a packet header can be?
A. It can't be larger than the packet.
Q. Is there a limitation on how large a packet can be?
A. There are technical limitations on how large packets can be. They cannot be of infinite size or, for that matter, a very, very large size.
Q. When you say "technical limitations," specifically what do you refer to?
A. The way in which the protocols are defined, they will specify a limit to how large the -- if we use

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the term "transmission unit," the bundle of data, how big the bundle of data can be.
An example would be in the Ethernet world, it's I believe, something in the range of 1500 bytes, binary characters, long. It's just a spec that says a packet can't be longer than this.
A packet header will be well defined within a protocol. Each one of the fields will be defined. And so, you know, the packet headers are traditionally not of variable length. They're of a fixed length and a well defined pattern to the information that's in them.
But I can't quite remember, are we talking about packet header or packet. But packets cannot be, you know, because of protocol and technical limitations, cannot be of any, any arbitrarily large size. There are limits to how big they can be.
Q. Are those limits based on hardware characteristics of systems that will carry the packets?
A. They represent a specification and constraint on the underlying hardware system.
So, for example, if we, if we limit a packet to be sent over, let's say Ethernet, to something like 1500 bytes, that is important information to implementers to know how big buffers can be, how big -- they can't be 1400 bytes because they might receive a

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packet that's 1500 bytes. So these things are agreed upon in advance as to what the upper bound is, as a guideline for effective implementation.
Q. Do you ever have a situation where a packet in an upper layer has a maximum size that is larger than a maximum size of a packet in a lower layer?
A. All the time.
Q. What do you do in that situation?
A. You break up the larger item. You think of it as a molecule. You break up the molecule into smaller constituent atoms. And just as an atom can be broken up electrons, neutrons, and protons, the same thing is true at another level; it can be broken up even more. And at the level of the electron, it can be broken up into quarks or charms or whatever they call it. So it's all -- at every level, the way in which you can get very large things to be supported by the network is to turn it into a sequence of smaller things at an appropriate layer.
Q. You would agree in the situation where you have a higher level packet of a large size that has to get broken up by a lower layer into smaller packets, that the smaller packets don't necessarily need to be stored in sequence, true?
MR. SANDERS: Objection to form.

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THE WITNESS: There's a lot of words that were in there, and they didn't map onto my precise understanding of networking technology. So maybe we want to kind of parse that out a little by, piece by piece.
So one clarifying question I have is you said something about higher level packet. Can you be a little bit more precise of what you mean?
BY MR. ALBERTI:
Q. I believe I asked you a question that at a higher layer, you can have a packet size that can have a certain maximum that is larger than the maximum package size of a lower layer in the stack.
A. Yes. That was an earlier question, yes.
Q. So if we have a packet at such a higher layer that has to get broken up by a lower layer, the lower layer isn't required to store the packets in the exact same sequence as it received -- as it broke them up from the higher layer?
A. Store. There is buffering that occurs, so there is at least storage of part of the higher level thing. I, I guess I'm not quite understanding the distinction that you're, you're, you are drawing here between higher layer protocol or packet, and lower layer. I understand something is bigger, mapped into

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BY MR. ALBERTI:
Q. I want to move on to the next term, which is on page 18.
A. Uh-huh.
Q. The term is, "allocating is responsive to at least one field in the packet header." Did you discuss the amended change of this term before Mr. Seely's expert report?
A. No.
Q. When did you first become aware of the amended change to this term?
A. When I reviewed Mr. Seely's report.
Q. Before you reviewed Mr. Seely's report, did you take any issue with Motorola's earlier construction of this term?
A. I did not.
Q. Are you familiar with the concepts of interference and fading in -- we'll wait for the ambulance to go by.
Are you familiar with the terms "interference" and "fading" in the field of wireless communications?
A. I am.
Q. How do interference and fading affect wireless communications?
A. Both of them would be what, technically would

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be called "impairments" to the wireless channel. They would be things that make it more difficult to successfully traverse a wireless link with data.
Q. Can you explain interference and how that would impair a wireless channel?
A. So two -- let's, let's kind of set this up as kind of a little bit of an example.
Suppose that A wishes to communicate over wireless channel to B, and C wishes to communicate over wireless channel with D. If they are using, for example, the same frequencies but sending different information, the information being sent, based on the spatial proximity -- you know, the geography matters in this kind of stuff, how close they are, in the space between buildings and, you know, many, many considerations of the physical world -- the signal from C heading to D could also be in part heard by B listening to A.
So remember we were talking before about analog carrier waves. So what happens when at point B, receiving a communication from A, where the wave is on an upslope, it's simultaneously receiving a signal of, let's say, equal strength from C intended for D but heard at B, where it's a valley. If they were really of equal strength and completely synchronized in time you

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would get nothing; they add up. And so what typically happens is more of the, a weaker signal is heard compared to a stronger signal, and it kind of degrades it and it makes it more difficult for the receiver to extract the information content from that. So that's an example of interference.
Q. Is interference a challenge in designing a wireless communication system?
A. It is.
Q. Can you explain what fading is.
A. Fading is also an aspect of the physical reality of wireless communication that the power of the signal represented, for example, in its strength or amplitude of that wave form sort of gets degraded or smaller the longer the distance from the transmitter. And it goes by a so-called inverse square law. So if you go one step, the signal is half its strength; if you go two steps, it's a quarter of its strength; if you go three steps, it's an eighth of its strength, and so on. So if you are close, if A and B are close, it's not much of an effect; if A and B are far away, it may not be possible for B to extract information from the analog carrier that's carrying it sent from A.
Q. What is multipath fading?
A. Multipath fading is kind of a combination of

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interference and this fading phenomenon that we just talked about. In the real world, signals are, are bouncing off of surfaces and building sides and going down streets. And so signal A can send its, its analog carrier to B modulated with the digital information that it wants to send. And that wave form can also bounce off a building by a different path, and a little bit later than the main path, arrive at the receiver. So this business about bouncing and reflecting kind of delays the signal so that an earlier version of the signal arrives at kind of like a later point in time, interfering with the signal arriving at that later point in time. And that's multipath.
Q. Are fading and multipath fading challenges in designing a wireless system?
A. They are.
Q. Let's turn now to your invalidity report, Exhibit 1.
A. Could I put away Exhibit 4 at this point --
Q. Yes, you can put away Exhibit 4 for the time being.
A. Okay.
Q. I'd like to first direct your attention to page 10, paragraph 27 of your invalidity report.
A. Page 10, which paragraph?

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Q. I'm sorry. Yes, paragraph 27.
A. Twenty-seven.
Q. For shorthand, I believe all the experts in this case have thus far labeled the elements of claim 1 element A and element B. Element A begins "coupling one or more subscriber customer premise equipment (CPE) stations," and element B begins, "allocating said wireless bandwidth and system resources." And you've listed elements at 1-A and 1-B in paragraph 27. Do you see that?
A. I do.
Q. For ease of reference, is it okay if we're going to talk about the first limitation of claim 1 we'll call it 1-A, and the second we'll call 1-B?
A. I'm okay with that.
Q. Now, on page 9 and then carried over on page 10, you have summarized your invalidity opinions under the "Summary of Opinion" section 3. Do you see that?
A. I do.
Q. So I want to first start with your anticipation opinions, which appear summarized in paragraph 25, subsection (d). Do you see that?
A. I do.
Q. Is it correct that for anticipation, you have

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identified three references that in your opinion anticipate some or more of the asserted claims of the '450 patent?
A. Was -- I'm sorry, was -- it didn't sound like a question. But I may have missed the . . .
Q. The preamble. The preamble was, "Is it correct."
A. Oh, okay.
Q. That for anticipation, you have identified three references that in your opinion anticipate some or more of the asserted claims of the '450 patent.
A. Yes.
Q. Those three references, the first one is SWAN, the second one is Sylvain, and the third one is the '417 application, correct?
A. Correct.
Q. In addition to your anticipation opinions, in paragraph 25, subsection (e), you have listed a collection of obviousness type references. Do you see that?
A. I do.
Q. And does the bullet point list provide an accurate summary, specifically the bullet point list in paragraph 25, subsection (e), of your obviousness opinions concerning the claims of the '450 patent?

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A. It does.
Q. Are you familiar with the principle of inherency?
A. No.
Q. Do you understand that for anticipation, you can point to things that are expressly disclosed and that there may be things that you consider inherently disclosed?
A. I'm sorry. Could you repeat that?
Q. In rendering your anticipation --
A. Anticipation.
Q. -- opinion, did you point to anything that was expressly disclosed as support for meeting claim element 1-A or 1-B?
A. I believe that I did in each one of these references.
Q. Are you familiar with a principle where something may not be expressly disclosed but it may be inherently disclosed?
A. Maybe if you explain that a little bit more or give me an example, I can agree to that. I'm not familiar -- I'm not recollecting the legal terminology that you're currently using.
Q. In order -- well, actually, I think it might be in your report. So let's --

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A. I know.
Q. -- take a look.
A. There is a section in there, legal principles. So we're talking about anticipation.
Q. Right. So if you start at paragraph 18, if you look at the last sentence on page 5 of that paragraph, and if you read that to yourself, and then I'll ask you a question.
A. Okay. I understand, I understand this, this sentence and was not aware that it was called the principle of inherency or, or -- if that was the term that you had used.
Q. If you look on to the next sentence, it says, "I understand that a prior art reference inherently discloses a claim limitation if the limitation is necessarily present in the reference."
A. Yes.
Q. So do you understand -- let me state this differently.
How do you understand that principle to, to apply?
A. That the, the reference has to have the elements of the claim language disclosed in it, and it must be in the reference; or it can be inferred as necessarily having to be in that reference because of